

# Work Order ID 56981



Page 1

March 16, 2010 10:26:03 AM

Item ID: D4086-243

Accept



Setup Start



Revision ID:

Item Name: Placard, Max Load

Stop



Start Date: 3/16/10 Start Qty: 10.00



Cust Item ID:

Required Date: 3/23/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan: C8

Date: 10/3/10 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D4086

A

100



PURCHASING

Purchasing

Memo

Issue P/O: 11514  
Fabricate as per Dwg D4086  
Possible Supplier: Studio Lettrage  
Material release note is required

0.00

C8 10/3/10 (10)

110



Receive &amp; Inspect for Damage &amp; Mat'l Certs

0.00

P04/3/23 (10)

Packaging

Memo

Packaging

Ensure Material Release Note is attached

120



QC

QC6- Inspect dimensions to drawing

0.00

8/10/24

(XO)

Quality Control

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 56981**

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March 16, 2010 10:26:03 AM

Item ID: D4086-243

Accept



Setup

Start



Revision ID:

Item Name: Placard, Max Load

Stop



Start Date: 3/16/10 Start Qty: 10.00



Cust Item ID:

Required Date: 3/23/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

130



Packaging

Packaging

Operation  
DescriptionIdentify as per dwg & Stock Location: 10Set Up/  
Run Hours

0.00

Draw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

*10/03/24 A*

140



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

*10/03/24 A*

*BS 10-3-24  
(10)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Picklist Print**

Page 1

March 16, 2010 10:26:03 AM

Work Order ID: 56981



Parent Item: D4086-243



Parent Item Name: Placard, Max Load

Start Date: 3/16/10

Required Date: 3/23/10

Comments: IPP Rev:A new issue DD 10.03.16 verified by:EC

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D4086-243P 		Purchased	No			110	Each	0.0000	10.0000 		PL 10/3/23 (10)	

Placard, Max Load

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D

D

C

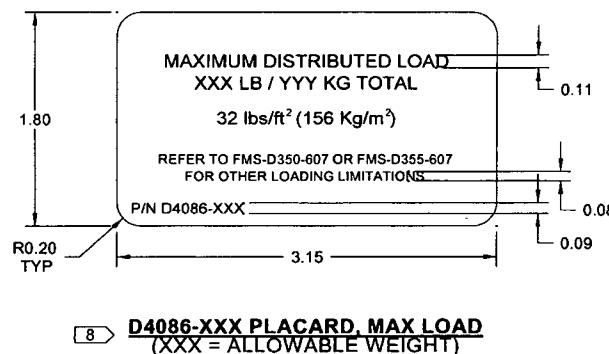
C

B

B

A

A



PART NUMBER	LOAD
D4086-210	210 lb/ 95 kg
D4086-220	220 lb / 100 kg
D4086-232	232 lb/ 105 kg
D4086-243	243 lb/ 110 kg

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 56981  
CL1013116

RELEASED  
2010-03-12  
JW

NOTES:  
1) MATERIAL: RED LETTERS WITH WHITE BACKGROUND AND ADHESIVE BACK.  
MANUFACTURED FROM 3M, 7 MIL MASKING FILM #8522CP OR  
AVERY IPM #2031

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: N/A

6) IDENTIFICATION: N/A

7) WEIGHT: N/A

8) PART NUMBER = D4086-MAX DISTRIBUTED WEIGHT IN POUNDS (lbs) OF THE BASKET.  
EXAMPLE: D4086-210 IS A BASKET WITH MAX DISTRIBUTED WEIGHT OF 210 POUNDS (lbs).

A	NEW ISSUE		JPH	10.03.08
REV.	DESCRIPTION		BY	DATE
DESIGN	JPH	DART AEROSPACE LTD		
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA		
CHECKED	JW	DRAWING NO.	REV. A	
MFG. APPR.		D4086	SHEET 1 OF 1	
APPROVED	JW	TITLE	SCALE	
DE APPR.	JW	PLACARD, MAX LOAD	NTS	
DATE	10.03.08	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS NOT TO BE COPIED OR REPRODUCED EXCEPT IN WHOLE OR IN PART WITH WRITTEN PERMISSION FROM DART AEROSPACE LTD		



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

\*\*\*PO REPRINT\*\*\*

Purchase Order ID PO11514

Purchase Order Date 3/16/10  
PO Print Date 3/23/10

Page Number 2 of 2

To:

VC-STU001

JDIO DE LETTRAGE 2001  
0 MAIN WEST  
HAWKESBURY, ON K6A 2H6  
CA

Contact Name

Vendor Phone 613 632 5449

Vendor Fax 613 632 9491

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

10127-2607

Tax Resale Nbr

Net 30

Terms

CAD

Currency

FOB

4	D4086-243P	Placard, Max Load	3/23/10	10.00	Yours ppd	\$7.5000	\$75.00
			Yes		Each		

Special Inst: AS ABOVE  
B56981

5	D4085-1P	Placard, Instructions	3/23/10	15.00	Yours ppd	\$5.0000	\$75.00
			Yes		Each		

Special Inst: AS PER DWG D4085 REV. A  
B56982  
MATERIAL SAME AS ABOVE

PO Total: \$375.00

CERTIFICATE OF CONFORMITY  
REQD UPON DELIVERY

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 2

Change Date: 3/23/10



210 MAIN W.,  
HAWKESBURY, ONT. K6A 2H6  
Tel.: 613 632-2001  
Fax: 613 632-9491  
www.studiolettrage.com

**INVOICE / FACTURE**

No.: 13561  
DATE: 03/23/2010  
PAGE 1 of 1  
Re: Quote No. 8461

VENDU À:  
SOLD TO:

Dart Aerospace Ltd  
1270 Aberdeen  
Hawkesbury, Ontario  
K6A 1K7

LIVRÉ À:  
SHIPPED TO:

Dart Aerospace Ltd  
Hawkesbury, Ontario

ITEM ARTICLE	QTY QYE	UNIT UNITE	DESCRIPTION	GST TPS	PST TVP	UNIT PRICE PRIX UNITE	AMOUNT MONTANT
	15		D4085 set up	E		3.3333	50.00
	10		D4086 210P	E		5.0000	50.00
	10		D4086 220P	E		5.0000	50.00
	10		D4086 232P	E		5.0000	50.00
	10		D4086 243P	E		5.0000	50.00
	1		Printing	G		125.0000	125.00
			E - GST @ 5% G - GST @ 5%; PST @ 8% GST				18.75
			PST Exempt: #6122-5207				
			<i>8 colors/24</i>				
Studio de Lettrage GST: #869034678RP001						<b>TOTAL</b>	393.75
PO 11514							
Sold By:							

Merci! Thank You!



## Product Bulletin 8522

Release F, Effective January 2003  
Black bar in margin indicates a change

# Scotchcal™ Opaque Imaging Media 8522

## Description

This media is specially formulated to dry quickly after printing. Production of outdoor weatherable and long-term indoor durable graphics is now easier than ever. Its changeable adhesive allows easy removal for up to one year.

## Advantages

- Optimized for use with selected Epson Stylus Pro printers and Epson Archival inks.
- Optimized for use with selected HP DesignJet Printers and HP DesignJet Ink System UV or HP83UV Color Ink System
- For making opaque, laminated graphics that are outdoor weatherable and long-term indoor durable
- Media:
  - For opaque (reflective) graphics
  - Changeable, easy to remove from warranted substrates up to 1 year later
  - Dries quickly after printing so the overlaminates can be applied almost immediately
  - Low slippage paper liner for superior tiling
- Overlaminate:
  - Provide additional UV (ultraviolet) and physical protection for making weatherable finished graphics
  - Available in luster and matte gloss
  - Adhesive allows for heat-assisted or cold-temperature lamination

## Applications and Uses

3M™ Scotchcal™ Changeable Opaque Imaging Media 8522 is intended only for ink jet printing and for use with the listed Compatible Products and Equipment and the following applications. Any other application is NOT warranted by 3M or covered by the worldwide 3M™ MCS™ Warranty unless 3M gives its prior written approval for the application.

- First surface images (the image is on top of the film) for opaque posters and signs, including:
  - Graphics for vans, personal vehicles, trucks and buses
  - Novelty posters
  - Retail and point-of-purchase displays
  - Information graphics such as maps and directories
  - Entertainment promotions in museums, zoos, parks, theatres, sports venues
  - Education and presentation graphics

- Legal and courtroom exhibits

- For flat or simple curved surfaces, with or without rivets, used in vertical ( $\pm 10^\circ$ ) applications

## Limitations of End Uses

The following uses and applications are specifically NOT warranted.

- Fleet applications in areas that use salt for winter road maintenance
- Application to non-warranted substrates, including wall-board
- Applications subjected to gasoline vapors or spills
- Application to corrugated or highly irregular surfaces or sharply raised areas
- Graphics applied to stainless steel, including stainless steel vehicles
- On flat surfaces with rivets, tenting of 4 to 10 mm around rivets may be expected; rivets may be cut around to eliminate tenting.

Note: Standard ink jet technology is water based. Water-based chemistry is susceptible to the extremes of heat and humidity. This is a factor in most product constructions on the market. Read the Fabrication, Shelf Life and Storage sections in this bulletin. Staying in the middle of these ranges always provides optimum performance.

## Compatible Products and Equipment

### Thermal Ink Jet Printing Systems

- Epson Stylus Pro 9500, Stylus Pro 10000 printer
  - Epson Archival Inks
- Epson Stylus Pro 10600 printer
  - Epson Archival Inks
- HP DesignJet Printers 2000 and 3000 series
  - HP DesignJet Ink System UV (pigment-based ink)
- HP DesignJet Printers 5000 series
  - HP83UV Color Ink System

### Overlaminate (required)

- 3M™ Luster Overlaminate 8519 (semi-gloss)
- 3M™ Matte Overlaminate 8520

Note: For the full product names of the 3M products listed on this page, please see page 1.

### Warranted Substrates

Media 8522 is warranted for use on the following rigid substrates.

Some substrates may "out-gas", resulting in tiny bubbles throughout the surface of the graphic. For maximum performance, be sure the substrate you select is properly cleaned and prepared as recommended by the manufacturer. See Instruction Bulletin 5.1 for additional information.

- Alodine (anodized aluminum)
- Automotive panels (automotive painted steel)
- Fruehauf (painted aluminum)
- FRP (fiberglass reinforced plywood)
- Glass
- Imron® (polyurethane-painted metal panel)
- Acrylic
- Sintra® board

### Test and Approve Non-warranted Substrates Before Use

Media 8522 is not warranted for any substrate other than those listed above. If you want to use it for other substrates, 3M recommends that you test and approve the media for both adhesion and removal characteristics.

### Characteristics

Characteristic	Description
Media	7 mil, white, opaque graphic film
Liner	Low-slipage, lay flat paper
Adhesive	Changeable, pressure sensitive
Thickness (media and adhesive)	7.5 to 8 mil (nominal)
Application substrates	See Warranted Substrates, above
Application surfaces	Flat or simple curved surfaces, with or without rivets, used in vertical ( $\pm 10^\circ$ ) applications (no corrugations)
Application temperature range	28° to 110°F (-2° to 43°C) (air and surface)
Roll sizes	36" x 45 feet (914 mm x 13.5 m) 54" x 45 feet (1372 mm x 13.5 m)

## How to Become a 3M Ink Jet Registered Fabricator

Only 3M Thermal Ink Jet Registered Fabricators are eligible to offer 3M MCS warranted graphics. In order to become certified, a fabricator must complete the requirements as specified in the 3M Ink Jet Graphics Registered Fabricator Reference Manual located on the 3M website at [www.scotchprint.com](http://www.scotchprint.com).

### Effective Performance Life

To obtain the warranty given below, the graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3. Also see the section, Removability.

#### Warranted Durability

Media 8522 with Overlaminate 8519 or 8520	Epson Printers		HP Printers	
	Outdoor	Indoor	Outdoor	Indoor
Applied to Warranted Substrates	2 years	5 years	3 years	5 years

### Removability

Imaging media 8522 is removable from warranted substrates for 1 year without the aid of chemical strippers or accessories. Refer to Instruction Bulletin 4.23 for additional information.

### Fabrication

Graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3.

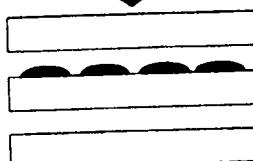
See Instruction Bulletin 4.23 for detailed fabrication, printing and mounting information.

### Graphic Construction Options

#### Opaque (Reflective) Graphics

Opaque graphics made with imaging media 8522 require an overlaminate and an opaque substrate.

##### Viewer/Light Source



Overlaminate 8519, 8520  
Adhesive on bottom

Imaging Media 8522  
Image on top; adhesive on bottom  
Opaque Substrate

Note: For the full product names of the 3M products listed on this page, please see page 1.

## Shelf Life and Storage

- 3M™ Scotchcal™ Changeable Opaque Imaging Media 8522 has a shelf life of one year.
- Storage conditions (new and partially used rolls). For optimum performance, use the middle of these ranges:
  - Original packaging, including plastic wrap
  - Relative humidity of 20% to 80%
  - Temperature of 33° to 104°F (0° to 40°C)
  - Away from direct sunlight
- Do not stack unprotected rolls or lay sharp or heavy objects on them.

## Health and Safety

### Caution

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at <http://www.3M.com/msds>.
- By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

## Warranty and Limited Remedies

### 3M™ MCS™ Warranty for Graphics Produced on HP DesignJet Printers and Epson Stylus Pro Printers

The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose: We warrant graphics produced by a 3M Ink Jet Registered Fabricator made with imaging media 8522, printed on an approved HP thermal ink jet printer according to HP's recommendations or Epson Stylus Pro printer according to Epson's recommendations, overlaminated with 8519 or 8520, and applied to a Waranteed Substrate according to 3M's recommendations. These

graphics are covered against failure caused by ultraviolet light, temperature extremes, pollution, and other elements.

If a graphic fails to perform in accordance with 3M product specifications within this time frame, 3M will replace the materials at no charge. **These remedies are exclusive. In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor charges.**

## 3M Related Literature

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at [www.scotchprint.com](http://www.scotchprint.com), or order them via our Fax-on-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-800-364-0768

International: 1-651-732-6506

Subject	Bulletin No.	FOD No.
<b>Product Bulletins</b>		
3M™ Scotchcal™ Overlaminate 8519 and 8520	8519/8520	4524
<b>Instruction Bulletins</b>		
Making thermal ink jet graphics	4.23	6523
Application, substrate selection, preparation and substrate-specific application techniques	5.1	7001
<b>Warranties</b>		
Worldwide 3M™ MCS™ Warranty Packet (includes all Commercial Graphics MCS Warranties)		9503
Worldwide 3M™ MCS™ Warranty Overview-Folder		9504

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Sintra is a trademark of Swiss Aluminum Ltd.

Intron is a registered trademark of DuPont in the United States.

### Bulletin Change Summary

The Epson Stylus Pro Printers 9500, 10000 10600, and Epson Archival Inks have been added to this bulletin. Additional changes resulting from this addition are marked with black bars in the margin.



#### Commercial Graphics Division

3M Center, Building 220-6W-06  
PO Box 33220  
St. Paul, MN 55133-3220 USA  
General Info 1-800-374-6772  
Technical Info 1-800-328-3908  
Fax 1-651-736-4233  
Fax on-Demand 1-800-364-0768 US/Canada or 1-651-732-6506 International  
Fax-on-Demand document 4506  
[www.scotchprint.com](http://www.scotchprint.com)

#### 3M Canada

P.O. Box 5757  
London, Ontario  
Canada N6A 4T1  
1-800-265-1840  
Fax 519-452-6245

#### 3M México, S.A. de C.V.

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Col. Santa Fe, Del. Alvaro Obregón  
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52-55-52-70-04-00  
Fax 52-55-52-70-22-77

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Puerto Rico Industrial Park  
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